were performed to comparison of DAS based on sex, job, marital status and other demographic data. The level of significance was set at <0.05.

The mean and standard deviation age of 128 patients included in this preliminary study was 53.23 (SD=9.51). In the assessment of psychological variables, the results of this preliminary study showed that the abnormal levels of stress, anxiety and depression in patients awaiting CA were 97.6% (40.6% moderate, 57.0% severe), 66.4% anxiety (55.5% moderate, 10.9% severe) and 20.3%, respectively.

The differences between the levels of anxiety and stress in male and female was statistically significant (p=.000) and stress (p=.04). Also, a statistically significant was seen between marital status and anxiety level (p=.000).

The findings of this preliminary study showed that the patients awaiting elective CA experienced higher levels of psychological problems. In other studies results showed that the anxiety and stress of patients before CA was high (3, 5). Harkness et al. (6) concluded that waiting for cardiac catheterization can cause anxiety of patients. In a qualitative study by Beckerman et al. (7), anxiety of patients before cardiac catheterization was related to physical discomfort and fear. Anxiety of patients waiting for CA may be related to lack of knowledge and uncertainty (8). In this study, we assessed the levels of psychological variables at the admission time to the wards and most of the patients were not informed about the procedure of CA.

It is necessary to inform patients waiting for CA about procedure and psychological support for decrease in the levels of anxiety, stress and depression of these patients. The nursing cares before CA should focus on informing and support of patients.

Nahid Jamshidi, Abbas Abbaszadeh[1], Majid Najafi Kalyani[2]
Department of Postgraduate Studies, Fatemeh (P.B.U.H) Nursing & Midwifery School, Shiraz University of Medical Sciences, Shiraz-*Iran*
[1]Department of Medical-Surgical Nursing, Razi Nursing School, Kerman University of Medical Sciences, Kerman-*Iran*
[2]Department of Nursing, Fasa University of Medical Sciences, Fasa-*Iran*

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Address for Correspondence/Yazışma Adresi: Dr. Majid Najafi Kalyani Department of Nursing, Fasa University of Medical Sciences Ebn-E-Sina Sq, Fasa-*Iran*
Phone: +987312220994-6 E-mail: majidnajafi5@yahoo.com
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Double outlet right ventricle: Fallot type or non-Fallot type

Çift çıkımlı sağ ventrikül: Fallot tip veya non-Fallot tip

Dear Editor,

Double outlet right ventricle (DORV) is a ventriculoarterial connection with both great vessels arising, entirely or mainly, from the right ventricle (1). DORV morphology should be characterized by an exact description of the ventricular septal defect (VSD) in relationship to the semilunar valves, of the great arteries to each other, the presence of pulmonary outflow tract obstruction or aortic outflow tract obstruction, the tricuspid-pulmonary annular distance, finally the presence of other, associated cardiac pathology (2). Treatment approach and clinical follow-up depend on accurate anatomical description complete identification of associated anomalies. Various criteria have been used in the definition and classification of DORV. The relationship of VSD to the great arteries is the basis for the classification proposed by Lev et al. (3), one of the most widely used clinical classification schemes to date for DORV. The Association for European Pediatric Cardiology (AEPC) considers DORV in four different types: VSD-type, Fallot-type, transposition of great arteries (TGA)-type and non-committed (remote) VSD type (4). The protocol followed in our clinic considers DORV as either Fallot-type or "others", and applies a 50% rule. There are, however, some difficulties in applying this rule in transthoracic echocardiography (TTE) interpretation, especially for borderline cases. Considering the subjective character of such a rule in cases when there is no subaortic conus or TGA, the absence of mitral-aortic fibrous continuity is used as a second criterion. With TGA, absence of mitral-pulmonary continuity is required. Previous studies showed that establishing a mitral-aortic continuity for DORV diagnosis is uncertain; other criteria such as the relation between the posterior walls of the aorta and pulmonary artery were suggested for use in differential diagnosis against the tetralogy of Fallot (5). Although ascent from the right ventricle of more than 50% of aorta may be accepted as a sufficient condition for DORV, demonstration of a total defect is liable to modify pre-operative preparation. The diagnosis of DORV implies not only anatomical heterogeneity and difficulties with clinical classification, but also problems concerning surgical timing and the choice of appropriate technique. The characterization of malformations for a correct choice of diagnosis and treatment should include the position of VSD, the relations between the great arteries, and the presence or absence of pulmonary artery outlet obstruction, pulmonary hypertension and associated cardiac lesions. According to our observations, part of the patients incurs the risk of pulmonary hypertension as a consequence of pulmonary hyperperfusion, predominantly in non-Fallot type DORV. A correct characterization of these risks affects treatment and follow-up. While definition and classification of DORV currently remain controversial, a correct identification of the defects with TTE and the characterization of associated anomalies can help reduce morbidity and mortality by indicating the correct treatment methods.

Ayhan Çevik
Department of Pediatric Cardiology, Faculty of Medicine, Gazi University, Ankara-*Turkey*

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Address for Correspondence/Yazışma Adresi: Dr. Ayhan Çevik
Gazi Üniversitesi Tıp Fakültesi, Pediyatrik Kardiyoloji Bilim Dalı, Ankara-*Türkiye*
Phone: +90 312 202 56 26 Fax: +90 312 202 56 26
E-mail: ayhancevik12@hotmail.com
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Mitral kapağı üzerindeki miksomanın minimal invaziv total endoskopik cerrahi tedavisinin video sunumu

Video of minimally invasive totally endoscopic surgical treatment of a myxoma on the mitral valve

Minimal invaziv kalp cerrahisi yıllar içinde hızla gelişmektedir. Günümüzde çalışan kalpte, kardiyopulmoner baypas (KPB) kullanılmaksızın koroner baypas, minimal invaziv direkt koroner arter baypass (MIDCAB) (1), periferik kanülasyon, endovasküler kardiyopumoner baypas ve kalbi durdurarak, minitorakotomi ile koroner baypas (Port-akses koroner baypas), minimal invaziv 8-10 cm'lik insizyonlardan ministernotomi veya sağ anteriyor minitorakotomi ile ya da video-yardımlı yaklaşık 4 cm'lik küçük insizyonlardan minitorakotomi ile kapak cerrahisi (2), konjenital kalp hastalıkları (atriyal ve ventriküler septal defektleri, patent duktus arteriyozus) ve kardiyak kitle (trombüs/tümör) cerrahisi (port-akses kalp cerrahisi) (3) başarı ile yapılabilmektedir.

Minimal invaziv stratejisi için esas hedef daha az doku travması, eksizyonu ve kanamadır. Beklenen daha fazla hasta konforu ve daha iyi kozmetik sonuçlardır. Port-akses kalp cerrahisi ile de sternotomi ve komplikasyonlarından sakınılabilir. Bunlar daha hızlı iyileşme, daha az ağrı, daha az hastanede kalış, daha iyi kozmetik görünüm, daha az morbidite (enfeksiyon ve inme riski) demektir. Ancak periferik kanülasyona bağlı retrograd aort disseksiyonu ve tromboemboli gibi vasküler komplikasyonlar olabilir. Ayrıca kross klemp ve kardiyopulmoner baypass süreleri daha uzundur.

Port-akses kalp cerrahisi Heartport Port-Access sisteminin (Cardiovations, Division of Ethicon, Johnson&Johnson Company, Somerville, NJ, A.B.D.) geliştirilmesiyle Nisan 1995 'de ilk defa uygulanmış ve hızla yaygınlaşmıştır. Biz de TOBB-ETÜ Hastanesi Kalp-Damar Cerrahisi kliniğinde sol atriyal miksoması olan bir hastayı standart endoskopik aletleri kullanarak total endoskopik yöntemle ameliyat ettik.

Yirmi sekiz yaşındaki erkek hasta transözefageal ekokardiyografisinde (TEE) mitral kapağın anteriyor yaprakçığının ventriküler tarafında bulunan 1.2 cm'lik hareketli bir kitle nedeniyle operasyona alındı. Operasyon sola 30 derecelik bir pozisyonda yapıldı. Çift lümenli endotrakeal tüp kullanılarak sağ akciğeri söndürüldü. Endoaortik klemp dislokasyonlarını tespit etmek için çift radiyal arter monitorizasyonu yapıldı. İki boyutlu kamera trokarı (Storz, Tuttlingen, Germany) 4. interkostal aralık-midaksiller hat kesim noktasından, diğer iki trokar anteriyor aksiller hat üçüncü ve beşinci interkostal aralık kesim noktasından yerleştirildi. KPB için sağ femoral arter (20F Heartport Port-Access sistemi) ve sağ femoral ven (25F) kanüle edildi. Asandan aorta, TEE yardımı ile femoral arterden yerleştirilen perfüzyon kanülünün üzerindeki intraaortik balon klempi (Cardiovations) ile klemplendi. Antegrad kardiyopleji (Buckberg solüsyonu) de aynı kanül üzerinden aort köküne verildi. Kardiyoplejik arrest sağlandı. Sol atriyum interatriyal oluktan açıldı. Sol atriyotomi üst kısmı iki sütür yardımıyla ekarte edilip mitral kapak rahatça görülebilecek hale getirildi. 1.2x1.0 cm'lik kitle rezeke edildi (Video). Makroskopik görünüm miksomayla uyumlu idi. KPB süresi 121 dakika, X klemp süresi 57 dakika idi. Postoperatif herhangi bir komplikasyon olmadı ve üçüncü gününde taburcu edildi. Üç ay sonraki kontrolde yapılan transtorasik ekokardiyografide herhangi bir rezidüel kitle ve mitral kapakta anormallik tespit edilmedi.

Miksomalar primer kardiyak tümörlerin en yaygın görülen tipidir. Kardiyak tümörler embolizasyon, obstrüksiyon ve aritmilere sebep olabileceğinden tanı konulduktan sonra hemen rezeke edilmelidir. Minimal invaziv video yardımlı atrial miksoma rezeksiyonu bildirilmiştir (3). Çin'de ise 12 hastada total torakoskopik kardiyak miksoma rezeksiyonu yapılmıştır (4). Biz de kliniğimizde ve Türkiye'de ilk defa yapılan total endoskopik sol ventriküler miksoma rezeksiyonu kısmen ve tümüyle videosuz rapor ettik (5). Ülkemizde üç olguda robot yardımı ile tam endoskopik koroner baypass cerrahisi başarı ile yapılmıştır (6). Fakat robot kullanmadan laparoskopik enstrümanlarla total endoskopik miksoma rezeksiyonunu bir ilktir. Bunun gibi uygun vakalar, iyi eğitimli ve tecrübeli kalp cerrahları tarafından başarıyla yapılabilir.

Bu vaka sunumu kısmen ve videosuz Ann Thorac Surgery 2011;91:1988-90 dergisinde yayınlanmıştır (Gerekli izinler Annals of Thoracic Surgery editörlerinden alınmıştır)

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Pınar Köksal Coşkun, Gül Baytan Sezer*, Alper Tosya, Tayfun Aybek
TOBB-ETÜ Hastanesi Kalp Damar Cerrahisi ve *Anestezi Klinikleri, Ankara-*Türkiye*

Video 1. Sol atriyal miksomanın total endoskopik yöntemle çıkarılması

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Yazışma Adresi/Address for Correspondence: Dr. Pınar Köksal Çoşkun
TOBB-ETÜ Hastanesi Kalp- Damar Cerrahisi Kliniği, Ankara-*Türkiye*
Tel: +90 312 292 99 00-4852 Faks: +90 312 292 99 10
E-posta: koksal42@hotmail.com
Çevrimiçi Yayın Tarihi/Available Online Date: 16.11.2012

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